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UNITED STATES GOVERNM

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DATE: June 4, 1986

REPLY TO ATTN OF: H. Thomas, GDO/USAID, Sana'a

SUBJECT: USAID/Yemen Child Survival Strategy

TO: P. Hartenberger, ANE/TR/HPN, Washington D

Please find attached the revised USAID/Yemen Child Survival Strategy report prepared by Lee Feller.

att: A/S

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USAID/YEMEN CHILD SURVIVAL STRATEGY

As of this writing, USAID/Yemen has just completed a new CDSS and Action Plan, both of which reference a new project paper that is being submitted for AID/W review in May, 1986. That project paper, titled Accelerated Cooperation for Child Survival (ACCS), along with a related consultancy report on ORS Commercial Sales in Yemen, is the basis of USAID's long-term (five year) CS plan and of this document.

I. SCOPE OF THE PROBLEM

Yemeni infants, children and women are subject to some of the worst survival rates in the world. Infant mortality is about 190/1,000 in remote, rural regions of the country, and about 135/1,000 in more urbanized areas. The latter rate reflects severe deficiencies in health awareness. Child mortality is also extremely high, with estimates ranging from 63/1,000 to 95/1,000. Maternal mortality is 10/1,000 according to recent survey data, unchanged since the 1979 World Fertility Survey.

Diarrhea is the most prevalent childhood illness and is associated with more than 50% of all child deaths. Diseases otherwise preventable by immunization are associated with an additional 15-20% of infant deaths. A joint Yemen/WHO/UNICEF EPI evaluation in 1982, based on MOH data, estimated an annual incidence of polio of 18.6/100,000 population (4.01/1,000 children prevalence); neonatal tetanus rates of 3.01/1,000 live births (accounting for 8.1% of all neonatal deaths); and high prevalence of tuberculosis (18.2% in age group five to nineteen years). Diphtheria and whooping cough appear in epidemic form. Coverage rates of competed immunization in infants and children range from 10% to 15% respectively in EPI operational areas, which cover 25% of the country.

Acute respiratory infections are associated with 15-20% of all child deaths, according to survey data from the Tihama Primary Health Care Project. Attacks of diarrhea and ARI are intensified by malnutrition, which weakens children's resistance. Despite the apparent availability of adequate food, child malnutrition is common. In 1979, the National Nutrition Survey showed 4.4% of children wasted, 56.2% stunted. By age 12 to 24 months, over 60% of Tihama area children show low weight for age; one-third of under two-year-olds are severely or moderately undernourished.

Breast feeding is falling off. In the Tihama, 12% have never been breast fed, and over 50% stop breast milk by six months of age. Weaning to solid food comes late, 53% after twelve months

of age. Many children are given bottle feeds with artificial formulas, or low-density packaged cereals.

Pregnancy wastage appears high in several governorates. Many women report as many as 18-19 pregnancies resulting in only 2-3 living children. The average number of pregnancies is about 12-14, although pregnancy wastage, infant and child mortality reduce the total completed family size (including parents) to an average of nine. The early age at marriage for women (15.5 years) undoubtedly contributes to pregnancy wastage, as does the absence of knowledge or use of childspacing methods.

II. STATUS OF PROGRAMS AND POLICIES

The MOH BHS/PHC plan is generally based on the establishment of village Primary Health Care Units (PHCU's) staffed by a primary health care worker, and in some cases a birth attendant, which are to be backed up by rural health centers (Subcenters) staffed by two or more medical practitioners. (These are the weakest link in the system, and are being phased out). One or more Training Health Centers in each governorate provide the full range of supervisory and training support services.

Informal interviews with PHC workers throughout Yemen indicate that most villagers consider the PHCU's to be their first accessible health services, and that acceptance is high. In the past ten years villagers voluntarily constructed dozens of health centers with assistance from the MOH or donors, but had great difficulty with staffing them due to the critical lack of trained health workers. Several large, well-made health centers that were vacant for years are now staffed solely by PHC workers trained in the past year (1985), which was the first year PHC worker and Birth Attendant classes were introduced in five rural governorates.

With regard to the specific aims of a Child Survival Strategy, the Ministry of Health in the YAR has taken several important steps (also in the past year) that can be considered encouraging Resources previously devoted to vertical disease control programming have been integrated into the National Primary Health Care Program. A national program for the identification and training of Traditional Birth Attendants has been implemented by the MCH Division with support from WHO and UNICEF. The first regional ORT management training has taken place under the auspices of WHO, and ORT is now available in all PHCU's and Health Centers. Also, in response to a UNICEF initiative, a mass immunization/child survival campaign has been endorsed by the President of the YAR, who will personally initiate the campaign by delivering the first dose of polio vaccine. The campaign is due to be completed on the 25th anniversary of the Yemeni revolution in 1987.

In summary, the first five year BHS/PHC plan (1982-1986) has been implemented to a reasonable extent, although, as might be expected, the areas where the plan was originally implemented were all sites of donor assistance (e.g., USAID's Tihama PHC Project, Norwegian Save the Children's Ibb PHC Project). 1985 marked the first year that the MOH took the initiative, in cooperation with governorate health officers, to begin assisting the areas which have not been supported by donor projects with starting up new PHC training projects. This and the above mentioned policy decisions, particularly the immunization campaign, indicate that sufficient groundwork has been laid by the "model" projects for the MOH to move into an institution-building phase, wherein resources invested will be increasingly effective.

III. MAJOR PROBLEMS

The infrastructure for key Child Survival interventions remains very weak outside urban areas. Population coverage with Ministry of Health Primary Health Care Services is limited to 15-10% of the rural population. Lack of trained staff is the major constraint.

Also, for cultural reasons mothers are typically unwilling and/or unable to travel beyond their villages for child health care, except in cases where well-known acute care hospitals are within a 3-4 hour drive and family members can provide transportation. Women's lack of mobility and the poor performance of the few expatriate physicians located in rural areas with regard to preventive health care provide the case for expanding the number of primary health care units.

At the same time, deficiencies in planning and management, particularly finance, need to be addressed. As in many developing countries, all the highest level admininstrative posts are filled with physicians with little or no background in management. The health finance picture has been shrowded due to inadequate accounting procedures, reluctance or inability of officials to obtain necessary financial information, and even stronger reluctance to release available information to foreign consultants.

Until recently, mortality rates and numbers of health facilities were rarely referred to or even acknowledged for planning purposes. Increasing willingness to allow survey research, and requests to the Tihama Primary Health Care Project for management training at the central level (Manpower Planning, Finance and Logistics courses have been scheduled) are healthy signs, but actual development of national planning capability will undoubtedly be a long-term process.

IV. GAPS IN CHILD SURVIVAL PROGRAMS AND PRIORITY NEEDS

ORT: ORT is available at all levels of the MOH health services, and packets are provided free of charge to private practitioners. Pharmacies have ORS supplies, but sales are low because pharmacies are typically next door to MOH health centers.

Concerning the health services system, the major gap in ORT coverage relates back to lack of infrastructure. About 40-50% of the Yemeni population live in rural areas where the physician to population ratio is one per 30,000 at best, and physicians are typically clustered in governorate capitals. PHCU coverage is no higher than 20% in these areas at present, and perhaps lower due to poor transportation conditions and reluctance to travel except in emergency cases. With regard to the private sector, there are very few pharmacies in Yemen, and not all villages (by any means) have even small grocery stores, although most have very small stalls selling mostly cookies, bottled water and cigarettes.

Supplies from UNICEF (500,000 packets was the size of the first order) have been adequate for the PHC system, and one million additional packets have been ordered for this year. Not all private sector pharmacies have ORS supplies, although the major drug distributor, the Yemen Drug Company, does import packets for sale in pharmacies. No other private sector commercial outlets stock ORS packets.

Mass communications have been limited to television programs produced by the MOH. Response to these programs caused a very noticeable commercial supply gap about two years ago, which resulted in incorrect use of Pediolyte, a specialized therapy inappropriate to the type of elecrolyte imbalances common in dehydrated Yemeni children. The MOH was forced to ban importation of Pediolyte as a result. No advertising has been done in the private sector, nor are there any visible displays of ORS.

There are about two million under-fives in Yemen at present (1986 estimates), and using a broad yardstick of 1 incidence of severe diarrhea per year, per child, the requirement for ORS would be two million packets per year (assuming 100% access). At present, total importation over time has been one million packets. If advertising was done or if PHC coverage proceeded at a slightly accelerated pace, and there was no accompanying increase in supplies, there would be a shortage of ORS.

With regard to health education, most large Health Centers in Yemen have ORT education rooms, which are supplied with packets

and handle diarrheal disease cases. Although the quality of the information is perfectly adequate, parents are given packets to take home for the sick child. Only one Health Center in country has a 24-hour ORT "feeding" room, that is sufficiently furnished to allow parents to spend as much time in the Health Center as necessary rehydrating their children. It is very well utilized, and allows health workers to observe parents' practices and the accomplished rehydration of infants (which is recorded), and to offer parents supplementary information (interpersonal and audio cassettes) on breastfeeding and nutrition.

IMMUNIZATION: As noted previously, immunization coverage among children is very low. Tetanus toxoid injections are scarcely present. In the absence of a resource-intensive campaign approach, constraints to achieving reasonable coverage levels (e.g., 50% of the under-fives) would require many years to overcome. Immunization services are theoretically available throughout the MOH PHC system, but many PHCUs and even large Health Centers are non-functioning in this regard. Even if all PHCUs and Health Centers fulfilled their roles in terms of child immunizations, (again) PHC infrastructure is inadequate for the task of achieving good immunization coverage levels.

Throughout the health system (including hospitals and private clinics), the supply logistics involved in the delivery of immunizations have not yet been successfully introduced. Vaccine packing is poor and few cold chain quality control measures are used. Vaccine spoilage prior to release from customs has been a serious problem. Compared to ORT, inservice training on immunization technology and its importance to child survival has been very limited. Most of the Training Health Centers have vaccination rooms which are staffed solely by EPI workers, resulting in a less than cost-effective use of staff time. Immunization cards are well utilized by EPI workers, but there is no national disease surveillance system. PHC workers and Birth Attendants do not have a clear role in immunization delivery except in the most advanced PHC program sites. Generally speaking, promotion of immunization to date has been limited to referrals from Health Center staff.

Only one governorate, Hodeidah Governorate, has an established school registration system requiring completed immunization cards. Although local government is supposed to take an active role in readying communities for the upcoming immunization campaign, no preparation for special meetings has occured. The role of local government to date has been largely limited to financial support for PHC and voluntary construction projects. Raising community awareness of immunization through the efforts of local level officials and designated volunteers is planned,

but only in a very general sense.

Similarly, mass media support for the campaign is acknowledged as part of the plan. However, specific mass media message design and testing, methods of timing messages and ways of using the one national television/radio production network to inform widely dispersed communities have not yet been developed.

HEALTH EDUCATION FOR MATERNAL CHILD HEALTH-- BREASTFEEDING, CHILD NUTRITION, AND CHILD SPACING METHODS: Low health awareness plagues families at all income levels and in all the varying geographical regions of Yemen. Health education is limited to verbal instructions from Health Center staff to patients who have come for treatment. Materials such as slide presentations are only present in a few large Health Centers. Basically, health education is seen as part of treatment, rather than as a way of preventing illness.

Attitudes and practices toward both child spacing and proper weaning practices are mixed. There appears to be a societal tendency to believe that these are personal decisions, and should not be the subject of "unsolicited" education, even in the form of posters or brief radio announcements. The MOH has provided inservice training on family planning to Health Center Midwifery/Birth Attendant staff, but they are not allowed to prescribe contraceptives. No nutritionists are present in Yemen, and no form of education on weaning methods or timing is evident.

Contraceptives are supplied to the Ministry of Health through the Yemen Family Planning Association (IPPF affiliate), when Health Center staff are able to travel to Sana'a for supplies. There is no contraceptive distribution system at present, and supplies are clearly inadequate throughout the PHC network. Contraceptives are imported by the Yemen Drug Company for distribution to their private pharmacies, where physicians can purchase them. But even on this level, supply shortages have been mentioned informally by physicians.

The only clinic in country devoted to family planning is the YFPA, which has been restricted by the ambivalence of its own Board Members with regard to information, education and communications techniques, and by the poor quality of overall clinic management. A recent IPPF decision to monitor a membership meeting and support an expatriate Executive Director may improve the situation.

The only successful large-scale MCH/family planning programs at present are those which are supported almost entirely by donors, and which were preceded by 5-15 years of clinic

operations. Three or four modern, well-run and respected clinics operated with PVO assistance are "expected" to be the sites of innovation by the MOH. Due to reluctance by the MOH to acknowledge the importance of child spacing, expansion of these rather autonomous clinics, and development of additional model MCH centers, appears to be the only acceptable short-term avenues of introducing innovative, preventive health education messages on the sensitive issues of child spacing and weaning.

V. USAID/YEMEN STRATEGY: 1986-1991

Components of USAID/Yemen's Child Survival Strategy are described in detail below. The basic component of the strategy is to initiate a new child survival project in 1986 which will be complemented by a centrally funded sub-project focussed on diarrheal disease control with private sector involvement. Supplementary components of the strategy are the use of several regional and centrally funded projects, along with continued policy dialogue with the Government, to increase use of family planning and child spacing techniques by the population at large, and close coordination with other donors (e.g., UNICEF) and PVO's to assure that child survival interventions are timely and complementary.

Accelerated Cooperation for Child Survival Project

The ACCS Project Paper (279-0082) outlines the major interventions proposed for support by USAID/Yemen over the next five years.

The major outputs are:

(1) Raising awareness and thereby demand for child survival interventions through support for a national immunization campaign and a related mass media campaign;

(2) Accelerating PHC coverage of the least served populations, located in six rural governorates, through a mix of training, technical assistance, construction and operational support inputs (using PL 480, Title I funds, assuming YARG concurrence);

(3) Incorporating health education (e.g., ORT, breastfeeding, child spacing) into current primary health care programs through support for local skills development at all levels;

(4) Promoting innovation by decentralizing project implementation planning to governorate level collaborative teams and through a special projects fund for activities (by PVOs and others) designed to improve the scope and quality of child survival interventions.

The proposed project would commit USAID to a bilateral grant of $12.7 million dollars over a five year period. Although various evaluation criteria are discussed in detail in the project paper, specific logframe benchmarks include 75% immunization coverage of under-fives in the six rural governorates that are the primary project sites (the national immunization campaign objectives are 100% coverage in urban areas and 60% coverage in rural areas); 50% PHC coverage of the populations at the project sites, which is inclusive of sustained ability to provide ORT and immunization services; development of a mass media strategy in support of the national immunization campaign, and the establishment of health education units in two Health Centers in each of the six rural governorates; and, support for two to six innovative activities through PVO's, NGO's, or MOH administrative units. The major initial focus of these activities is expected to be the extension of child spacing services and the development of national disease surveillance capability.

$2,000,000 (non-additive) of PL 480 funds are included in the ACCS project plan for health center and PHCU construction materials as part of an intended cooperative project with Peace Corps/Sana'a. In terms of static budget levels, it is also important to note that one-third of the overall project budget is for local currency expenditures, and USAID will propose that PL 480, Title I funds, be used to support some of the local costs of the project.

Diarrheal Disease Control and the Private Sector

ORS/ORT promotion via the private sector will be undertaken with the assistance of AID centrally funded projects, and will be parallel to the child survival project activities. The centrally funded project activities will be implemented in cooperation with a private water bottling firm and a parastatal drug manufacturer, and is intended to establish an ORS distribution system through small general merchandise and grocery stores in areas of rural Yemen where ORS is now unavailable. Local production of ORS products specifically suited to Yemeni consumer preferences will be initiated by at least one of these organizations, and aggressive marketing campaigns will accompany the product launches.

The water bottling firm will imprint a line around their bottles indicating mixing levels for ORS, a special logo, and may initiate a marketing campaign by attaching free packets of ORS to the bottles. Because bottled water is one of the most widely available commercial products in Yemen, this approach is expected to be very favorably received (assuming no regulatory problems emerge). These campaigns will begin only after adequate public knowledge about ORS self-care can be verified.

Summary Sub-Project Description:

a. Design and execution of a media campaign to raise public awareness about the dangers of childhood diarrhea, the availability of ORS, and its correct use in self-care.

b. Establishment of local production of ORS by at least one of the two potential firms (bottled water sales and actual drug sales). If only one wishes to invest in production facilities initially, an arrangement wherein one company could supply the product for repackaging under the other's brand name might be worked out, along with plans for a simultaneous marketing kick-off campaign with variations in target markets, either in a geographical sense or by type of outlet.

c. Strengthening of the two distribution channels so that ~~retail outlets such as grocery stores in all parts of Yemen are~~ actively involved in the sale of ORS. This will include development of methods to ensure that information on the use of ORS is available at or near sales points.

d. Development and execution of a marketing campaign for increasing demand and use of ORS generally and, unless not permitted, by specific brand. The actual product design would be included as part of this activity and would also be related to the local production component.

Immunization, Monitoring, Surveillance and Evaluation

Immunization coverage and targets are discussed in the ACCS project paper: the project expects to assist the YARG to achieve 75% rural EPI coverage, and go on to achieve at least 50% PHC coverage in 6 governorates, including immunization maintenance as an integral part of PHC.

The national immunization program has an easy to use paper system for the registration of vaccinations and for monthly reporting. One sheet of 2-part tally forms is collected by EPI supervisors and collated at the governorate health directorate. The summary reports are forwarded to the central EPI program office in Sana'a. Individual vaccinations are recorded on child cards retained by the parent and on a duplicate card retained by the unit providing the vaccination. A separate duplicate card system is used for the tetanus toxoid vaccinations for women of child bearing age. The TPHCP uses integrated family health cards rather than the national EPI cards. This recording system can be rapidly expanded to meet the information requirements of the national mass campaign. In those governorates where the PHC infrastructure will be developed, the same system will be used.

A specific ACCS project sub-activity is to be housed in the MOH Central Laboratory, the purpose of which will be to establish a national disease surveillance capacity. The objective of this activity is to improve the design, management and evaluation of disease control activities within the context of the national PHC program. Expected outputs include improved host-country diagnostic and biostatistical capabilities, as well as capability to analyze findings and produce reports that can be used for national PHC planning.

A number of other countries in this region have chosen to carry out annual immunization coverage surveys using the WHO/EPI cluster survey methodology to obtain baseline data and for annual follow-up. It is possible that with the assistance to be provided to the Central Laboratory similar survey work could be done in Yemen.

Family Planning and Child Spacing

In addition to family planning and child spacing as an integral component of PHC and a pilot MCH and child spacing project as described in the child survival project paper, this element of the child survival strategy will be promoted via a broad range of training, demonstration, pilot and other activities through regional and centrally funded family planning projects.

Using this approach, the specific activities to be undertaken over the next 5-10 years cannot be described. We do, however, present an illustrative list of activities planned for negotiation and implementation by USAID/Yemen, the MOH and other YARG agencies over the coming months. This will give an idea of the types of programs deemed possible in Yemen:

- training in FP management for MOH governorate Director Generals of health;

- mini-laparoscopy training for up to 30 nominees;

- feasibility assessment of Norplant contraceptive implant clinical trials (FHI);

- possible field testing self-instructional family planning training models for clinicians with the YARG Health Manpower Institute (HMI);

- three workshops for MOH officials on integrating FP concepts into the HMI curriculum, and TA for the re-design of midwifery curriculum to include family planning principles;

- senior MOH management participation in CEDPA workshop on planning and management of service delivery programs in FP, health, and development for Yemen;

- possible MOE and its Department of Women's Education sponsorship and conduct of a follow-up trainer of trainers Women in Development workshop in Yemen with CEDPA assistance;

- possible ANE regionally-funded demographer to work in the YARG Central Planning Office (CPO), and sponsorship of workshops in a) microcomputer applications for demographic analysis and b) evaluating censuses; and

- contraceptive commodity procurement for YARG family planning activities.

Donor Coordination

~~The Yemen Arab Republic is at a relatively early stage of~~ development and donor coordination has been a difficult task. In the health sector, various donors have attempted to implement their own favored strategies for health services development. It can reasonably be said that adequate planning capabilities at the central Ministry of Health have been hindered from developing as a result of overdependence on, and confusion over, the activities of various donor agencies.

The Ministry of Health has publicly recognized this problem, and the child survival project is planned to take advantage of a good atmosphere for donor coordination. Clearer MOE policies are emerging and the positions of the various donor agencies are much better understood. Also, the national immunization campaign, which is supported in part by the child survival project, requires donor coordination due to the large resource requirement. USAID expects to continue working closely with UNICEF on its provision of technical advisory services such as management training and development of disease surveillance capabilities, and to encourage the initiatives of PVO's operating in the country, which at present include Save the Children and OXFAM.

Other

USAID/Yemen currently has one USDH Health and Population Development Officer and one Health and Population FSN Project Assistant. One additional FSN position for Health and Population is tentatively planned, and a Project Assistant position, possibly a TCN, is budgeted within the ACCS project.

As stated in State 113739 from AA/ANE Greenleaf, paragraph 8, it is possible that health fallout funds might be available later in the fiscal year and some reprogramming of central

funds may be possible. In this regard, USAID will strongly support that additional funds from SET's Health SUPPORT Project in the amount of $200,000 be targeted for the above mentioned ORS production project, which, according to a PRITECH consultancy report, can be initiated as soon as funds are available.

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